

REMARKS

This is a full and timely response to the final Official Action mailed **February 13, 2004** (Paper No. 4). Reconsideration of the application in light of the above amendments and the following remarks is respectfully requested.

Claims 1-9, 20-23 and 26-41 are currently pending for the Examiner's consideration.

In the final Office Action, the Examiner indicated the presence of allowable subject matter in claims 6-8, 32, 33, 39 and 40. Applicant wishes to thank the Examiner for this identification of allowable subject matter. Consequently, claims 6, 7, 32, 33, 39 and 40 are rewritten herein as independent claims. Therefore, based on the Examiner's identification of allowable subject matter, claims 6-8, 32, 33, 39 and 40 should be in condition for allowance following entry of this amendment.

Claims 1-3, 9 and 20-21 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,923,220 to Honma ("Honma"). For at least the following reasons, this rejection is respectfully traversed.

Claim 1 recites:

An apparatus for outputting a clock signal for video reconstruction in a terminal, comprising:

an oscillator that generates the clock signal;

a control logic circuit with a phase locked loop for receiving an incoming video signal and phase locking to a clock signal portion of the incoming video signal, wherein the control logic circuit outputs a control signal for controlling an output of the oscillator based on the phase lock; and

a frequency range bouncer in the phase locked loop that receives the control signal and outputs a bounded control signal that bounds the frequency of the oscillator to a selected range;

wherein the incoming video signal is a digital signal and the clock signal portion of the incoming video signal is program clock reference data for the digital signal.

Similarly, claim 20 recites:

A method for outputting an oscillator-generated clock signal for video reconstruction in a terminal, comprising the steps of:
receiving an incoming video signal in a control logic circuit with a phase locked loop;
phase locking to a clock signal portion of the incoming video signal; and
limiting the oscillator frequency to a selected range using a frequency range bounder in the phase locked loop, wherein the frequency range bounder receives a control signal and limits the oscillator frequency based on the control signal;
wherein the incoming video signal is a digital signal and the clock signal portion of the incoming video signal is program clock reference data for the digital signal.

According to the Office Action, Honma teaches the claimed frequency range bounder at col. 11, line 55 to col. 12, line 64 (Embodiment 4). In pertinent part, this section of Honma states:

In step S10, the variable range of the control information is detected according to a receiving interval obtained in step S4 and the specified frequency variable range. Then, in step S11, a maximum value of the obtained variable range is compared with the control information obtained in step S5.

In case that the maximum value of the variable range is larger than the control information, the maximum value of the variable range obtained in step S5 is determined as a control information.

In case that the maximum value within the variable range is equal to or smaller than the control information, the maximum value within the variable range is determined as a control information.

(Honma, col. 12, lines 41-53)

Thus, according to Honma, the maximum value of a range is compared with incoming control information. If the maximum value of the range is larger than the incoming control information, that maximum value is used as the control information. However, if the

maximum value of the range is equal to or smaller than the incoming control information, the maximum value of the range is still used as the control information.

Consequently, as written, Honma actually teaches that the maximum value of the range will be used as the control information regardless of what the incoming control information is. The incoming control information is essentially discarded. Therefore, Honma does not teach or suggest the claimed frequency range bouncer that outputs a bounded control signal.

"A claim is anticipated [under 35 U.S.C. § 102] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). See M.P.E.P. § 2131. Therefore, the rejection of claims 1-5, 9 and 20-23 based on Honma should be reconsidered and withdrawn.

Claim 2 recites that "the frequency range bouncer includes an output multiplexer and a threshold register that stores at least one threshold value and that is coupled to the output multiplexer, wherein the output multiplexer receives a control signal and outputs one of the control signal and said at least one threshold value as a bounded control signal to limit the frequency of the oscillator to the selected range." Similar subject matter is also recited in claims 4, 5, 27-30 and 35-37.

The Office Action alleges that Honma teaches the claimed output multiplexer and threshold register(s). However, no such components are described in Honma.

Moreover, Applicant notes that where the examiner relies on a single reference under § 103, it is insufficient to merely state that it would be obvious, or a mere matter of design

choice, to modify the disclosure to include the features of the claimed invention. In re Mills, 16 USPQ2d 1430, 1432 (Fed. Cir. 1990). "To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." M.P.E.P. § 2143.03. (emphasis added). Accord. M.P.E.P. § 706.02(j). For at least this additional reason, the rejection of claims 2-5, 27-30 and 35-37. should be reconsidered and withdrawn.

Claims 4, 5, 22, 23, 26-31, 34-38 and 41 were rejected under 35 U.S.C. § 103(a) in view of the teachings of Honma taken alone. This rejection is respectfully traversed as follows.

Claim 23 recites:

The method of claim 22, wherein the limiting step further has the steps of:
comparing the control signal with at least one of a high limit and a low limit;

outputting the upper value as the bounded control signal if the control signal is above the high limit; and

outputting the lower value as the bounded control signal if the control signal is below the low limit.

As demonstrated above, Honma does not teach outputting a lower value if the control signal is below a low limit. The only output is the maximum value. For at least this additional reason, the rejection of claim 23 should be reconsidered and withdrawn.

Claim 26 recites:

A circuit for controlling an oscillator that outputs a clock signal for video reconstruction, comprising:

- a control logic circuit with a phase locked loop for receiving an incoming video signal and phase locking to a clock signal portion of the incoming video signal, wherein the control logic circuit outputs a control signal for controlling an output of the oscillator based on the phase lock; and

- a frequency range boulder in the phase locked loop that receives the control signal and outputs a bounded control signal that bounds the frequency of the oscillator to a selected range;

- wherein said frequency range boulder is configured to generate a high limit signal and a low limit signal and then select one of said control signal, said high limit signal or said low limit signal for transmission to said oscillator depending on whether said control signal remains within pre-defined high and low limits.

Similarly, claim 34 recites:

A method of controlling an oscillator that outputs a clock signal for video reconstruction, wherein said oscillator is controlled to remain within high and low frequency bounds, said method comprising:

- receiving an incoming video signal and phase locking to a clock signal portion of the incoming video signal;

- outputting a control signal for controlling an output of the oscillator based on the phase lock;

- generating a high limit signal and a low limit signal; and

- selecting one of said control signal, said high limit signal or said low limit signal for transmission to said oscillator depending on whether said control signal remains within pre-defined high and low limits.

Claim 41 recites similar subject matter in the form of a means-plus-function claim.

In contrast, Honma does not teach or suggest generating a high limit signal and a low limit signal and then selecting one of a control signal, said high limit signal or said low limit signal for transmission to said oscillator, as claimed. For at least this reason, the rejection of claims 26-31, 34-38 and 41 should be reconsidered and withdrawn.

Entry and consideration of this amendment are proper under 37 C.F.R. § 1.116 for at least the following reasons. The present amendment makes only those changes necessary to place claims 6-8, 32, 33, 39 and 40 in condition for allowance as indicated by the Examiner. The amendment does not raise new issues requiring further search or consideration and places the application in better form. Therefore, entry of the present amendment is proper under 37 C.F.R. § 116 and is hereby requested.

For the foregoing reasons, the present application is thought to be clearly in condition for allowance. Accordingly, favorable reconsideration of the application in light of these remarks is courteously solicited. If any fees are owed in connection with this paper which have not been elsewhere authorized, authorization is hereby given to charge those fees to Deposit Account 18-0013 in the name of Rader, Fishman & Grauer PLLC. If the Examiner has any comments or suggestions which could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the number listed below.

Respectfully submitted,



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DATE: 9 April 2004

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